

Title (en)  
HEAT CONVERSION APPARATUS

Title (de)  
WÄRMEUMWANDLUNGSVORRICHTUNG

Title (fr)  
APPAREIL DE CONVERSION DE CHALEUR

Publication  
**EP 3723144 A4 20210512 (EN)**

Application  
**EP 18885320 A 20181204**

Priority  

- KR 20170165257 A 20171204
- KR 2018015241 W 20181204

Abstract (en)  
[origin: EP3723144A1] A heat conversion apparatus according to one embodiment of the present invention comprises: a duct through which cooling fluid passes; a first thermoelectric module disposed on a first surface of the duct; a second thermoelectric module disposed on a second surface, which is disposed in parallel to the first surface, of the duct; and a gas guide member disposed above a third surface disposed between the first surface and the second surface of the duct so as to be spaced from the third surface, wherein the gas guide member includes one end thereof coming in contact with the first thermoelectric module, the other end thereof coming in contact with the second thermoelectric module, and an extended part for connecting the one end and the other end, and the gas guide member can have a form in which the distance thereof from the third surface gradually increases toward the center between the one end and the other end.

IPC 8 full level  
**H10N 10/13** (2023.01); **H10N 10/01** (2023.01); **H10N 10/17** (2023.01); **H10N 10/81** (2023.01)

CPC (source: EP KR US)  
**H01L 23/367** (2013.01 - US); **H10N 10/01** (2023.02 - EP KR); **H10N 10/13** (2023.02 - EP KR US); **H10N 10/17** (2023.02 - US);  
**H10N 10/81** (2023.02 - EP KR); **Y02T 10/12** (2013.01 - EP)

Citation (search report)  

- [A] EP 2713412 A1 20140402 - VEIL ENERGY S R L [IT]
- [A] US 9343648 B2 20160517 - GILLE GERARD [FR], et al
- [A] US 2011239635 A1 20111006 - PRIOR GREGORY P [US], et al
- [A] WO 2015111459 A1 20150730 - FUTABA IND CO LTD [JP]
- See also references of WO 2019112288A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**EP 3723144 A1 20201014; EP 3723144 A4 20210512;** CN 111433924 A 20200717; CN 111433924 B 20231128; JP 2021506209 A 20210218;  
JP 7171725 B2 20221115; KR 102095242 B1 20200401; KR 20190065763 A 20190612; US 11489100 B2 20221101;  
US 2021234082 A1 20210729; WO 2019112288 A1 20190613

DOCDB simple family (application)  
**EP 18885320 A 20181204;** CN 201880078694 A 20181204; JP 2020530670 A 20181204; KR 20170165257 A 20171204;  
KR 2018015241 W 20181204; US 201816769092 A 20181204